REMARKS

In the present amendment, claims 1 and 7 have been amended. Accordingly claims 1-8 remain pending in the application with claims 1, 3 and 7 being independent claims. Of the pending claims, claims 1, 2, and 7 are under consideration, and claims 3, 4, 5, 6, and 8 have been withdrawn from consideration.

Applicants note that claim 1 has been amended to more specifically recite the arrangement of the conductive particles in the adhesive sheet. Support for the amendment can be found in the present specification, e.g., at paragraph [0024] and Examples 1 and 2 of the published application.

Furthermore, independent claim 7 has been amended to include features with respect to the average particle size of the conductive particles, the average particle distance, and the thickness of the anisotropic conductive adhesive sheet, that are also recited in present claim 1.

No new matter has been added.

Claim Rejections – 35 U.S.C. § 103(a)

The Office Action maintains the rejection of claims 1, 2, and 7 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Connell et al. (US 2001/0008169, referred to hereinafter as Connell) as evidenced by Kropp et al. (U.S. Patent No. 5,362,421).

Applicants respectfully traverse the rejection. Applicants note that in an attempt to advance prosecution of the present application and without expressing agreement with or acquiescence to the rejection, claims 1 and 7 have been amended to even more clearly distinguish the presently claimed invention over the cited art.

Applicants note that claim 1 has been amended to recite that "the conductive particles are arranged to form vertices of approximately equilateral triangles." Support for the amendment can be found, e.g., in Examples 1 and 2, and paragraph [0024] of the published application. As also demonstrated in the Table and Figures of the Attachment and taught in the Examples of the present specification, the present invention involves applying a single layer of conductive particles onto a non-stretched film "so as to be substantially free of gaps" (see present specification, Example 1, paragraph [0053], lns. 1-6, and Example 2, paragraph [0055], lns. 1-7). Thereafter, by biaxially stretching the film in lengthwise and crosswise direction, a formation is obtained wherein 6 particles surround a center particle in approximately the same distance (see paragraph [0024]). A synonymous expression of the obtained particle arrangement is that "the conductive particles are arranged to form vertices of approximately equilateral triangles."

In contrast to the presently claimed invention, Connell teaches dimples which are filled with particles, whereby the dimples are "arranged in a rectangular array" (see, e.g., Connell, paragraphs [0062], [0063] and [0066] and Figures 6(a), 6(b) and 6(c)), or "arranged in a square array (see, e.g., Connell, paragraphs [0064] and [0065] and Figures 6(c) and 6(d). Applicants note that the presently claimed arrangement of particles results in a small difference in the number of particles between connection bumps; however, the difference in the number of particles between connection bumps in Connell becomes much larger because of the structure arrangement shown in Connell.

Concerning the rejection of claim 7, the Office Action acknowledges that this claim is a product-by-process claim; however, the Office "shifts the burden to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product." In response, as pointed out above, Applicants emphasize that the presently claimed

process leads to a different product than obtained by the method disclosed in Connell. Present claim 7 employs "densely packing conductive particles ... to form a conductive particle-attached film" and "biaxially stretching and holding the conductive particle-attached film so that the average particle distance between adjacent conductive particles is at least once but five times or less the average particle size of the conductive particles and not greater than 20 μm." Applicants note that in order to densely pack conductive particles to form a conductive particle-attached film," the particles need to be disposed in a close packed structure. This is also illustrated in the Figures of the Attachment. As a result of biaxially stretching a film having the conductive particles disposed in a densely packed structure, the particles arranged in the stretched film will have approximately the same distance between adjacent particles and "form vertices of approximately equilateral triangles," as can be also easily seen in the Figures of the Attachment. An advantage of the arrangement of the conductive particle of the presently claimed invention is that the change of the number of particles in a connection bump at each position is low. In comparison to Connell, because the conductive particles of Connell are disposed to form vertices of squares, the change of the number of particles in a connection bump at each position becomes much larger compared to the present invention. Applicants note that Connell does not describe or suggest a structure of conductive particles having the disposition of the presently claimed invention and its advantages. The presently claimed invention is clearly different in the disposition of particles compared to the conductive adhesive taught in Connell. Applicants further note that Kropp only describes the composition of a conductive adhesive curable composition and does not mention the packing structure of the particles. Accordingly, Kropp does not remedy the deficiency of Connell, and one of ordinary skill in the art following the

teachings of the combination of Kropp and Connell would not arrive at or suggest the presently claimed invention.

In view of the claim amendments and the foregoing arguments, withdrawal of the obviousness rejection over Connell in view of Kropp is respectfully requested.

CONCLUSION

In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections of record, and allow each of the pending claims. Applicants therefore respectfully request that an early indication of allowance of the application be indicated by the mailing of the Notices of Allowance and Allowability.

Respectfully Submitted,
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Attachment: 2 pages including Figures to demonstrate differences between the presently claimed invention in comparison to the product disclosed in Connell

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